

Addressing now the above-noted rejections, those rejections are traversed by the present response.

Briefly recapitulating, the present invention is directed to a coordinate inputting/detecting apparatus such as shown in Figure 1 in the present specification.

The applicants of the present invention have recognized drawbacks in that background coordinate detecting systems cannot always accurately detect the proper instance at which a pointer separates from a touch panel, such as shown for example in Figure 20 in the present specification. As shown in Figure 20 in the present specification, a pointer, in this case a user's finger 202, actually separates from a touch panel at the point P, but often a trailing line 204 results because the user's finger is not detected as separating from the touch panel until the point P'.

One way in which the present invention addresses such a drawback is to initially detect a designating device when an optical detection signal exceeds a first threshold value, and then to set a second threshold value higher than the first threshold value to recognize the coordinates of the position in the coordinate inputting/detecting area. Such an operation improves the detection at which a designating device leaves a coordinate inputting/detecting apparatus.

Such a feature as noted above is reflected in the claims and differs from the teachings in the applied art to Blue in view of Van Marcke.

First, the outstanding Office Action recognizes a deficiency in Blue in Blue not disclosing setting the "second threshold value".¹

¹Office Action of June 25, 2002, the paragraph bridging pages 2 and 3.

To overcome the recognized deficiencies in Blue the outstanding Office Action cites the teachings in Van Marcke. However, the teachings in Van Marcke appear to have been misconstrued and do not in fact teach the same type of thresholding operation as in the claimed invention. More specifically, Van Marcke discloses using two different thresholds in a proximity detecting device, but the thresholds used in Van Marcke are not directed to the claimed features, and even if combined with the teachings in Blue would not meet the claim limitations.

Specifically, Van Marcke discloses a system in which detection pulses are emitted based on electrical pulses applied by a circuitry 6 to an LED 1.² Van Marcke discloses changing the level of those emitted detection pulses based on whether a received signal is below a first threshold level or above a second threshold level. Van Marcke specifically states that the operation discussed therein “is enabled by the present invention due to the fact that it provides an automatic *adjustment of the power level of the emitted detection pulses* on the basis of the amplitude of the received pulses”.³ Van Marcke goes on to note that when the amplitude of received electrical signals are below a first threshold value an energy level of the electrical pulses supplied to the emitter 1 is increased, and when the amplitude of the received electrical pulses exceeds a second threshold level, the energy level of the electrical pulses supplied to the emitter 1 is decreased.⁴ Van Marcke discloses such an operation to enable detection of changes in amplitude or energy level of received detection pulses over a significantly large distance range.⁵

²Van Marcke at column 3, lines 20-22.

³Van Marcke at column 6, lines 33-36 (emphasis added).

⁴See, for example, Van Marcke at column 6, lines 44-53.

⁵Van Marcke at column 1, lines 57-61.

The outstanding Office Action misinterprets the above-noted teachings in Van Marcke in the following aspects.

First, the entire benefit of the device of Van Marcke is irrelevant to the device of Blue and is actually contrary to the claimed operation. As noted above, Van Marcke discloses an operation of utilizing two different threshold values to enable detection of received detection pulses over *a sufficiently large distance* range. The claims are not at all concerned with increasing a distance range of detection, and Blue is also not at all directed to achieving such a benefit. In fact it appears that it would be detrimental to the device of Blue to increase a distance range of detection as the device of Blue wants to ensure that a touch panel is in fact actually touched, which object of Blue may be detracted from by increasing a distance range as taught by Van Marcke.

Further, the two thresholds set in Van Marcke are utilized to control a power of an emitted signal. Combining such teachings of Van Marcke with Blue would obviously result in a device that changes the intensity level of the emitted light beams in Blue based on the detected threshold of a received signal. Such a feature still would not meet the claim features.

More specifically, the claims are not directed to a device that changes an intensity level of an emitted pulse based on whether a received signal is below a first threshold or greater than a second threshold as taught by Van Marcke. Instead, in the claims whether a signal exceeds the first threshold or whether a signal exceeds a second threshold is used to determine the coordinates of a position in the coordinate inputting/detecting area, which is neither taught nor suggested by Van Marcke.

Moreover, Van Marcke is directed to a system that merely detects an object by checking a speed variation in intensity of a signal with a timer. Its circuitry includes a feedback loop to expand a dynamic range of an element. The threshold in question is utilized

to only enable the feedback loop to stably operate. Thus, the threshold set of Van Marcke only contributes to detection of the object, and the main factor therefore is the timer, and not the actual threshold.

In contrast to Van Marcke, the claimed invention directly compares an intensity of a signal with a threshold, and does not detect a time difference. Thus, the threshold has a decisive influence on the object detection. Moreover, unlike Van Marcke, the present invention does not include a feedback loop and also has a different behavior from Van Marcke.

Further, due to a difference in the configuration of circuitry, the effect of the threshold between the present invention and Van Marcke differs. Specifically, the present invention has an advantage in that a timing of a judgment if an object exits can be hastened by setting a relation between two thresholds appropriately. As a result, a trailing line can be suppressed. In contrast to the present invention, Van Marcke cannot operate in the same as Van Marcke detects exiting by simply detecting the above-described timing variation. This results because of differences in objectives between the present invention and Van Marcke. Specifically, the objective of the device of Van Marcke is to credibly detect only a fast movement while removing a variation in light intensity caused by environmental or time elapsing factors. In contrast, one object of the present invention as recited in Claim 1 is to suppress a trailing line, and not to expand a detectable range and increase credibility as in Van Marcke.

In such ways, even combining the teachings with Van Marcke to the teachings in Blue would not meet the claim features.

Thereby, each of the pending claims is believed to clearly distinguish over the combination of teachings of Blue in view of Van Marcke.

Moreover, no teachings in Fumihiko are believed to overcome the above-noted deficiencies of Blue in view of Van Marcke.

In such ways, each of the pending claims is believed to clearly patentably distinguish over the applied art, and thus the present application is believed to be in condition for allowance. An early and favorable consideration to that effect is hereby respectfully requested.

Respectfully submitted,

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